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Proper use of the CNDDB Point GIS Layer

The CNDDBPNT.shp point GIS dataset should only be used for gross, graphic representations of the CNDDB with GIS for large areas or areas which are densely populated with occurrences. The CNDDB.shp (polygon feature class) GIS dataset houses more accurate occurrence location representations and information, and must be used when performing spatial analyses.

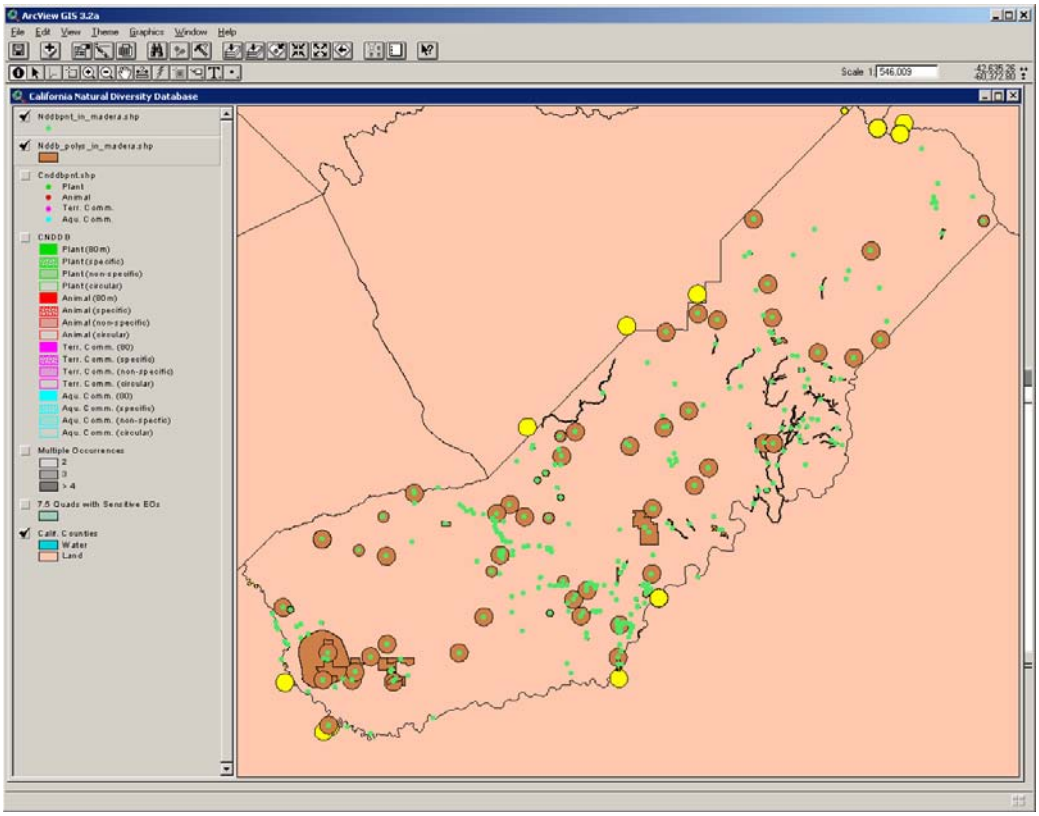
The point that represents each occurrence in the dataset is not the point of the actual occurrence. Many of the CNDDB users report that they use the CNDDBPNT dataset because they think the point is the actual point of the "site" and that the polygon is generated from the point. In fact, the opposite is the case.

For occurrences in which a polygon or many times multiple polygons are digitized by a CNDDB biologist which have an accuracy class (ACC_CLASS) value equal to two (2) or three (3), the point is the interpreted "center" of the occurrence as determined by the CNDDB biologist. For occurrences requiring circles with varying radii and accuracy classes of one (1) or four (4) through 10, a point is generated at the circle center. For more information about the ACC_CLASS field, please see \\CNDDB3\rfdocs\field_names.html ACC_CLASS included with subscriptions to the CNDDB RareFind 3.

Example: Why the CNDDB Point Dataset should not be used for Analysis

In most instances, analysis using CNDDB data should not be done using the point feature dataset (cnddbpnt.shp). If you believe that your analysis is better suited to using the point feature class, please contact the CNDDB biology staff to confirm (916) 322-2493.

Here is an example using Madera County. When the point data layer is used to select Element Occurrences, the polygons whose points are outside the border of the feature used for selection will be left out of the selection set. Try this yourself. Select the CNDDB polygons in Madera County. Then do the same using the CNDDB point feature data layer. Compare your results.



Polygon occurrences not in selection set 1

Steps in ArcView 3.2

1. Open the supplied CNDDB.apr and add the CNDDBPNT.shp dataset from C:\CNDDB3\gis\

2. Select the CNDDB points inside Madera county using Madera county as the selection feature
    - Select Madera County
    - Theme drop down menu > Theme on Theme selection
    - Select features of CNDDB (polygons) that intersect the selected features of Calif. Counties
    - Results = 369 polygon element occurrences (compare to 337 point element occurrences)

Note: the polygons highlighted above in yellow are the occurrences left out of the selection set using the CNDDBPNT.shp dataset. Again, this is due to the fact that the points for those polygons are outside the spatial selection criteria – the points are not in nor do they intersect the selected feature, Madera County.

Perform the same selection using the CNDDBPNT (point) feature class. The results show 32 fewer occurrences with the point dataset than the polygon dataset. Madera county point occurrences = 337 element occurrences. Your results may vary depending on the month and year of the CNDDB dataset you are using. This analysis was performed using the January 2004 CNDDB datasets.